

29. (new) The tray of claim 28, wherein open cells of the tray sheet comprise at least 85% of the total cells of the tray sheet.

Charge the fee of \$35 for the two claims in excess of 20 added herewith to deposit account No. 25-0120.

REMARKS

The application is believed to be in condition for allowance.

Claims 27-29 has been added.

Claims 3 and 15 have been amended responsive to the indefiniteness rejection. Withdrawal of this rejection is solicited.

Applicants appreciate the personal interview held with Examiner Becker and the undersigned attorney. The Examiner's attention and consideration is appreciated.

Claims 1-3, 8-9, 12, 14-15, 20, 22, and 24 stand rejected as obvious over UEDA et al. 4,959,207 in view of EP 6849309.

Claims 4 and 16 stand rejected over these two references in view of JP 61-120638.

Claims 5-7, 10-11, 13, 17-19, 21, 23, and 25 stand rejected over these three references in further view of JP 563150353.

Applicants respectfully disagree and request reconsideration as to each rejection. The dependent claims are believed to be allowable at least for depending from an allowable claim.

Although the below text will focus on the rejected independent claims, the features of the dependent claims are also believed to be allowable in their own right. Take for example, claims 7 and 19 reciting the adsorbent as aluminium oxide between 1.5 and 4% by weight of the total weight of the recited sheet. This is also recited in new independent claim 27. Claims 6 and 18 recite 0.5 - 3% by weight.

Page 5 of the Official Action offers JP 363150353 as teaching a food tray comprising a foam sheet with aluminum oxide impregnated within the range of 3-10%. A closer review will show that the reference does not make this teaching.

The reference teaches a foam resin made foam diatomaceous earth (comprising silicon oxide) for transporting boxes and wrapping inserts (paragraph spanning pages 1-2 of translation). Although transport boxes are disclosed, applicants do not see disclosure of a food tray.

Further, the disclosed 3-10% is the weight ratio of the "obtained powder" to the amount of polystyrene used. Note that the obtained powder is obtained by mixing and baking diatomaceous earth and a silicic acid (second full paragraph of translation page 2). A review of diatomaceous earth specifications shows

that silicon dioxide may be 4.0% of the diatomaceous earth. As the ratio of silicic acid to diatomaceous is not specified, it is not clear how much the silicic acid dilutes the diatomaceous earth and accordingly reduces the aluminum oxide concentration in the "obtained powder."

However, it is clear that the aluminum oxide is less than 0.12 to 0.4% (4% times 3-10%) of the "obtained powder" that the reference teaches to mix with the polystyrene.

Therefore, the reference is not believed to teach that for which it was offered.

Still further, note that this reference is relied upon to reject claims 5, 13, 17, and 25 reciting particle size and use of a surfactant. These recited features are not seen as being taught by the JP '353 reference.

Accordingly, the obviousness rejection as to claims 5-7, 10-11, 13, 17-19, 21, 23, and 25 are not believed to be viable as to the recitations of the dependent claims themselves.

As to the new claims, also see the recitations of the tray sheet containing divided adsorbing material distributed evenly throughout a thickness of the tray sheet; a non-expanded plastic material layer coating on the upper surface of the tray; apertures provided through the plastic material layer coating and and through the upper surface of the base and wide walls of the tray sheet, the apertures extending only partially into the thickness of the tray sheet. Also see in claim 27 the recitation

of the open cells of the tray sheet comprising at least 50% of the total cells of the tray sheet (85% in claim 29).

New claims 27-29 are believed patentable over the prior art and allowance is therefore solicited.

Independent claims 1 and 14 are also believed to be patentable.

These claims recite use of certain materials as effective adsorbents. UEDE et al. in column 1, lines 13-24 teach away from adsorption, e.g., by activated carbon, as being unsatisfactory to deal with malodors including those from amines.

As to UEDA et al., the Official Action references column 5, line 15 for a thermoplastic sheet impregnated with a deodorant composition together with lines 35-40 for the use of known deodorants. Indeed, UEDA et al. teaches away from adsorption in favor of odor masking via deodorants, i.e., a specifically effective deodorant in possible combination with other deodorants.

Line 15 discloses that UEDA et al.'s deodorant resin composition can contain known deodorants. These "known" deodorants are unspecified at this line. However, in any event as to what the deodorants may be, deodorants mask odors and do not function as adsorbers. Even if these deodorants inherently have some adsorber characteristics, there would be no motivation to use them in an effective concentration.

Lines 35-40 disclose the use of an inorganic substrate with "concrete examples [of the substrate] being activated carbon, alumina, silica gel, zeolite, clay, bentonite, diatomaceous earth and acid clay." There is, however, disclosure here only as to viable substrates and no disclosure as to the deodorant composition itself. Further, there is no disclosure of what substrates would be suitable for a food tray application.

As to the specifically disclosed deodorant, see the text of column 1, beginning at line 41: "the conjoint use of (A) a compound having an acid anhydride group in a molecule and (B) a copper compound can provide a deodorant composition excellent in deodorizing activity against malodors ... and that the deodorant composition is blended with a thermoplastic resin to give a deodorant resin composition having excellent deodorizing activity." The deodorant composition of UDEA et al. is clearly not a absorbent as recited by the pending claims.

In sum, UDEA et al. teach a deodorant composition (which is made of a compound having an anhydride group in its molecule and a copper salt) that can be incorporated as such into a thermoplastic resin, or it can be either impregnated in or coated on a foamed sheet (and thus must be a solution) or, finally, it can be supported on an inorganic substrate as per column 5, lines 35-40.

However, UEDA et al. do not teach that the deodorant composition can be at first supported on an inorganic substrate

to obtain a composite material that is then incorporated into a thermoplastic resin, i.e., a food tray.

Therefore, the sheet of thermoplastic material described in UEDA et al. does not contain a finely divided solid material provided with adsorbing properties towards odoriferous volatile substances as per claim 1, or a thermoplastic material with apertures and the sheet containing at least 0.5% by weight of adsorbing powder material.

UEDA et al. do not teach 0.5% by weight of the adsorbing material. Column 5, lines 42-48 concern the disclosed deodorant of UEDA et al. and there is no suggestion that the deodorant of UEDA et al. would include a high proportion of adsorbing material. Recall, the Official Action's argument (which applicants do not agree) is that adsorbing material would be a "further additive" to the disclosed primary composition. Accordingly, any further additive would appear to be a slight percentage of the total deodorant.

Further, as acknowledged by the Official Action, UEDA et al. do not teach open cells. For this, EP 0849309 is offered.

The combination of these two references, however, is not believed to be viable but rather only a *ex-post facto* selection. Indeed, in this case, it appears that the present disclosure is effectively being used to render the claimed invention obvious. Such an approach is not permitted.

The Federal Circuit emphasized in July, 1998 recognized that "[m]ost, if not all, inventions are combinations and mostly of old elements." *In re Rouffett*, 47 USPQ 2d 1453, 1457 citing to *Richdel, Inc. v. Sunspool Corp.*, 219 USPQ 3, 12 (Fed. Cir. 1983). The Federal Circuit continued by noting that "rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blue print for piecing together elements in the prior art to defeat the patentability of the claimed invention."

Thus, the Federal Circuit requires that in order to prevent the use of such hindsight, the Official Action must "show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." (*In re Rouffett* at 1458).

EP 0849309 teaches the use of open celled thermoplastic material for increased **absorption** capacity of liquids. However, it is submitted that the absorption capacity for liquids is totally distinct from adsorbing properties towards volatile substances. Applicants do not see that EP 0849309 offers anything more than absorption of liquids and makes no suggestion or teaching of assisting in adsorbing volatile substances. Accordingly, the skilled artisan, confronted with the same problems as the present inventor concerning **adsorbing volatile**

substances and with no knowledge of the claimed invention, would not find reason to select the "open cell structure" of EP 0849309 for combination with UEDA et al. in the manner claimed.

Indeed, as taught by the present specification page 7, lines 15-20, a careful selection of open-cell characteristics is necessary in order to avoid the moisture present in food from deactivating materials mixed in the open-cell thermoplastic. It would seem that concerns over the deleterious effects from the increased absorption of food moisture negating the UEDA et al. deodorant would teach away from the proposed combination.

Lastly, the Official Action points to applications using foamed thermoplastic materials; however, none of the prior art references display foamed materials that have an open cell structure.

For each of these reasons, the obviousness rejections are not believed to be viable. Accordingly, reconsideration and allowance are respectfully requested.

Applicants ask that all the claims be allowed.

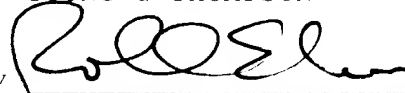
LUCIANO et al. S.N. 09/761,694

Attached hereto is a marked-up version of the changes made to the claims. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

Respectfully submitted,

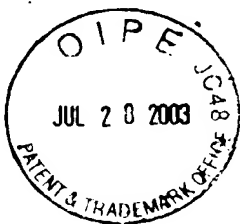
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LUCIANO et al. S.N. 09/761,691

VERSION WITH MARKINGS TO SHOW CHANGES MADE

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IN THE CLAIMS:

Claim 3 has been amended as follows:

3. (amended) A tray according to claim 2, wherein said divided solid material is selected from the group consisting of aluminum oxide, bentonite, kaolin, activated charcoal, zeolites, synthetic polymers ~~with a high melting point~~, graphite, mica, diatomaceous earth, pumice and clay.

Claim 15 has been amended as follows:

15. (amended) A sheet of expanded thermoplastic material according to claim 14, wherein said powder material is selected from the group consisting of aluminum oxide, bentonite, kaolin, activated charcoal, zeolites, synthetic polymers ~~with a high melting point~~, graphite, mica, diatomaceous earth, pumice and clay.